

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-30. (Canceled)

31. (Currently Amended) A method of screening an agent for toxic activity and a desired activity *in vivo* comprising  
administering the agent to a teleost *in vivo*; [[and]]  
detecting a change *in vitro* or *in situ* in expression of a protein or mRNA in a specific organ or tissue of the teleost responsive to the agent relative to the expression of the protein or mRNA in the specific organ or tissue of a teleost to which the agent has not been administered, ~~a response~~ the change in expression in the teleost indicating toxic activity in ~~the~~ at least one tissue or organ of the teleost; and  
assessing whether the agent is effective to promote the desired activity in the teleost.

32. (Canceled)

33. (Previously Presented) The method of claim 31, wherein the response in the teleost indicating toxic activity is detected in at least two tissues, at least two organs, or at least one tissue and one organ simultaneously.

34. (Canceled)

35. (Previously Presented) The method of claim 31, further comprising administering the agent to at least two teleosts and detecting a response indicating toxic activity in each of said at least two teleosts simultaneously.

36. (Previously Presented) The method of claim 35, wherein each of said at least two teleosts is contained in a well of a multi-well plate.

37. (Previously Presented) The method of claim 36, wherein the wells of the multi-well plate have a volume of 300 microliters or smaller per well.

38. (Previously Presented) The method of claim 36, wherein the wells contain the teleosts in a volume of 50-200 microliters per well.